

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

**REQUEST OF NASNA TO ADDRESS ISSUES
RELATED TO 911 APPLICATIONS FOR
SMARTPHONES**)
)
) **RM-11780**
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To: The Federal Communications Commission

**COMMENTS OF
MISSION CRITICAL PARTNERS, INC.**

Mission Critical Partners, Inc. (“MCP”), through its attorney, hereby submits its Comments in response to the Public Notice in the above-captioned docket (“Public Notice”).¹ The Public Notice seeks input on whether the Federal Communications Commission (“FCC” or “Commission”) should initiate a rulemaking proceeding to address issues related to how smartphone 911 applications (“911 Apps”) interface with existing 911 systems.

MCP encourages the Commission to initiate a proceeding to consider how best to apply existing regulations to 911 Apps and, where necessary, adopt new requirements. Any proposed regulations should protect consumers and the 911 system by ensuring that 911 Apps deliver information promptly, reliably, and accurately. MCP urges the Commission to craft regulations that address these goals while promoting – and not stifling – innovation in this nascent industry.

I. MISSION CRITICAL PARTNERS

MCP is a professional services firm that helps clients enhance and evolve their public safety and emergency communications systems and operations through our extensive experience, knowledge, and resources. We provide executive consulting to clients with public and life safety

¹ See *Public Safety and Homeland Security Bureau Seeks Comment on Request of the National Association of State 911 Administrators to Address Issues Related to 911 Applications for Smartphones*, Public Notice, DA 16-1405 (Dec. 19, 2016)(“Public Notice”).

missions throughout North America. Our client base consists of public safety answering points (PSAPs) in more than half of the United States. The comments herein draw on our breadth of experience as 911 professionals prior to becoming consultants, as well as working with many of those clients. MCP's comments provide the Commission with our experiences for the purposes of helping the agency understand how 911 Apps interface with the existing 911 system, how 911 Apps will interface with Next Generation 911 ("NG911"), and what role the Commission should play in adopting regulations to ensure 911 Apps reliably provide 911 call takers and PSAPs with useful information in an efficient manner, while also ensuring that those same rules do not stifle innovation in the marketplace for 911 Apps.

With a professional staff of more than 80 employees, the MCP team is well-qualified to comment on issues related to the 911 industry. The majority of our staff is former public safety and PSAP professionals who have held various leadership positions. Our experience in the industry has put our professionals in a unique position to understand the challenges PSAPs face in fielding and responding to emergency calls, whether those calls are initiated through a traditional land-line, mobile device, voice over Internet Protocol (VoIP) handset, a text message to 911, or a 911 App. At the end of the day, our success is based on the success of our clients and their mission critical operations – because the mission matters.

II. INTRODUCTION

On October 18, 2016, the National Association of State 911 Administrators ("NASNA") submitted a letter to the FCC requesting that the Commission initiate a proceeding to address issues related to how 911 Apps interface with 911 Systems.² The NASNA Request highlights

² Letter from Evelyn Bailey, Executive Director, National Association of State 911 Administrators, to Tom Wheeler, Chairman, FCC (Oct. 18, 2016)(NASNA Letter)("NASNA Request"). The letter is on file in RM-11780.

several concerns with 911 Apps and requests the FCC initiate a rulemaking proceeding to consider adopting rules that would address these various concerns.

The concerns can be organized into three general categories. NASNA has asked the FCC to consider adopting: (1) standards that address certain technological concerns with 911 Apps; (2) testing and/or certification requirements that 911 Apps must meet before entering the marketplace; and (3) rules governing the marketing of 911 Apps.

Under the first category, NASNA requests the FCC consider regulations or standards that address a host of technological issues. NASNA's request urged the Commission to consider proposed regulations that potentially would: prohibit the ability of a user to override location information (spoofing); prohibit the ability of a 911 App or 911 call button to generate duplicate emergency responses; require adherence to industry standards governing the interconnection to NG911 systems; and, ensure 911 Apps use appropriate public-safety grade delivery networks and methods for routing messages.³

Under the second category, NASNA requests the FCC consider testing or certification requirements that MCP believes would build on the Commission's 911 reliability rules it adopted in 2013⁴ and proposed rules from 2014⁵ that were never adopted. NASNA's proposed rules would enhance the focus on promoting the reliability of 911 Apps, and potentially would: ensure new 911 Apps would not harm how consumers access 911; ensure 911 Apps do not present a danger or impede the ability of first responders to address an emergency situation; ensure 911 Apps are tested to specific standards, including standards that address concerns related to

³ NASNA Request pp 2-3.

⁴ See *In the Matter of Improving 911 Reliability, Reliability and Continuity of Communications Networks, Including Broadband Technologies*, Report And Order, FCC 13-158 (rel. Dec. 12, 2013) ("2013 Reliability Rules").

⁵ See *In the Matter of 911 Governance and Accountability, Improving 911 Reliability*, Policy Statement and Notice of Proposed Rulemaking, FCC 14-186 (rel. Nov. 21, 2014) ("2014 Proposed Reliability Rules").

interoperability and downstream dispatching obligations; and, introduce specific standards for communicating and displaying supplemental consumer or incident information delivered by a 911 App for dispatching purposes.⁶

The final category of proposed rules included in the NASNA Request would require the Commission to consider rules that regulate consumer marketing and educational information related to 911 Apps. Under the NASNA Request, these proposed rules would: ensure marketing of 911 Apps is factually accurate; prohibit inaccurate claims from a 911 App provider that a governmental agency has approved, supported, or endorsed the 911 App; and prohibit inaccurate claims by a 911 App provider that a lack of cellular or broadband coverage is a failure of the 911 system.⁷

III. JURISDICTIONAL AUTHORITY

The Commission, through an assortment of statutory provisions, has relatively broad – though not unfettered – authority to regulate the 911 system. Several statutory provisions provide the FCC with authority over various provisions of the 911 system. For instance, the Communications Act of 1934 provides the Commission with a general mandate to promote safety of life through the use of wire and radio communication.⁸

More specifically, the 911 Act was passed to establish 911 as the nationwide emergency number to dial from wireless telephones and expedite the adoption of enhanced 911 (“E-911”) capabilities for wireless subscribers.⁹ And the NET 911 Act required VoIP providers to offer

⁶ NASNA Request pp 2-3.

⁷ *Id.*

⁸ 47 U.S.C. §151.

⁹ *The Wireless Communications and Public Safety Act of 1999, PL 106-81, 113 Stat 1286 (1999) (codified at 47 U.S.C. §251(e)(3)).*

911 and E-911 services to their subscribers.¹⁰ To accomplish this goal, the statute afforded VoIP providers with access to the same 911 and E-911 services as commercial mobile services providers.

Finally, the Commission has broad authority to regulate entities and services that are “reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities.”¹¹ Many – though not all – of the rules NASNA requested the FCC consider adopting fall squarely within the Commission’s primary or ancillary jurisdiction under the Communications Act. The Commission’s rules on wireless, VoIP, and text to 911 demonstrate the Commission’s role in protecting the public with reliable access to 911 systems. It would be nearly impossible for the Commission to carry out its duty of promoting public safety without addressing the potentially life-threatening dangers introduced to 911 service by 911 Apps.

However, the Commission should carefully review NASNA’s specific requests related to marketing and consumer education. We believe there is a fine line between what the Commission may regulate (*ex.* descriptions of service offered by the 911 App) and what is within the jurisdictional purview of other federal agencies (*ex.* consumer marketing).

The Federal Trade Commission (“FTC”) is the primary agency empowered with consumer protection responsibilities. The FTC enforces the Federal Trade Commission Act, which prohibits unfair and deceptive acts or practices in or affecting commerce.¹² Any material misrepresentation or omission may be considered deceptive if it is likely to mislead a reasonable

¹⁰ New and Emerging Technologies 911 Improvement Act of 2008 (“NET 911 Act”), PL 110-283, 122 Stat 2620 (2008).

¹¹ See, 47 U.S.C. §154(i).

¹² 15 U.S.C. 45(a).

consumer.¹³ The FTC may investigate unfair acts or practices, which are defined as causing (or being likely to cause) substantial injury that is not reasonably avoidable by consumers, and not outweighed by countervailing benefits to consumers or competition.¹⁴ Similarly, the Consumer Product Safety Commission (“CPSC”) is tasked with studying and investigating death, injury or illness associated with consumer products.¹⁵

Despite these other agencies having broad consumer-protection responsibilities, MCP believes there is a limited regulatory gap for the FCC to fill by adopting rules to address certain aspects of NASNA’s consumer outreach-related proposals. Neither the FTC nor the CPSC have expertise in how the 911 system is designed and operates. The FCC’s expertise in this area should be used to ensure consumers understand exactly what each 911 App is designed to do and the implications associated with using a 911 App.

IV. ARGUMENT

MCP urges the FCC to initiate a proceeding to consider sensibly applying existing rules on the reliability, security, interconnection, and accuracy concerns related to applications and systems that interconnect to the 911 system, such as 911 Apps, as raised in the NASNA Request. While not included in the NASNA Request, we foresee the need for the Commission to consider the broader potential for applications enabled by the Internet of Things (IoT) accessing 911 to present similar challenges and concerns as presented by 911 Apps. Future rulemaking must consider the same reliability, security, interconnection, and accuracy concerns for the IoT. We respectfully provide the comments and anecdotes below to help guide the FCC based on our decades of experience working in and with PSAPs and other public safety agencies. We are

¹³ See FTC Policy Statement on Deception, appended to *Cliffdale Assocs., Inc.*, 103 F.T.C. 110, 174 (1984), available at <https://www.ftc.gov/public-statements/1983/10/ftc-policy-statement-deception>.

¹⁴ 15 U.S.C. §45(n).

¹⁵ 15 U.S.C. §2054.

happy to provide these comments to the extent the Commission finds it beneficial in striking the appropriate balance between promoting consumer benefits, ensuring PSAP call takers receive the necessary information in a reliable manner and promoting – yet not stifling – innovation.

A. The Commission Should Propose Reliability, Security, and Accuracy Rules that Address NASNA’s Concerns Related to 911 Apps

The NASNA Request identified many grave concerns and risks that could be introduced into 911 systems by unregulated 911 Apps. For instance, NASNA notes that certain 911 Apps provide a user with the ability to “override location information generated by the device and enable location data to be ‘spoofed’ in a manner that displays information for the purposes of misleading the PSAP and first responders.”¹⁶ MCP has firsthand experience related to a 911 App that enabled location spoofing in a controlled environment.

Overriding Location Information. During a meeting of regional 911 directors at a suburban Maryland PSAP, concerns over emerging 911 Apps were raised and discussed among the participants. With permission of the hosting 911 director and with support from the on-duty supervisor, one 911 App was tested while physically present in the PSAP. The 911 App allowed the caller to select a location on the map that was **15 miles away** from the PSAP before making a 911 call through the 911 App. When answered by the 911 telecommunicator, the Automatic Location Identification (ALI) displayed indicated the **selected location and an accuracy of 10 meters**. The PSAP was not alerted that the ALI was not where the wireless device was located. Subsequent versions of this 911 App still allow a different location to be selected, but alerts the user that making a false call to 911 is a crime.

This scenario illustrates the significant risk associated with spoofing. Thankfully this was a test environment and did not impact actual emergency calls. However, the Commission

¹⁶ NASNA Request p. 2.

should not rely on the good intentions of all 911 App users. MCP urges the FCC to consider rules that would mitigate the likelihood of a spoofed emergency call. This may include requiring 911 Apps to provide a PSAP with both the true location of the device as well as the user-generated location. Or, perhaps the FCC's proposed rules would require a 911 App to alert a PSAP call taker when a location has been overridden, or empower a PSAP to call a 911 App provider to confirm location information for a specific emergency call. This could be invaluable to a PSAP to combat SWATing incidents.

The Commission should be mindful not to consider and propose any rules in a vacuum. For instance, requiring a 911 App provider to deliver the actual location and user-generated location may not be possible at all PSAPs depending on the call handling system at an individual facility. And alerting a call taker when the location has been overridden would not, in fact, provide them with the actual location of the device. Through the initiation of a formal rulemaking proceeding, the FCC can solicit feedback from the industry that will enable the Commission to balance the costs and benefits of various proposals, while ensuring the accuracy and reliability of information provided via 911 Apps.

Adherence to Interconnection Standards. The NASNA Request also urges the FCC to require all 911 Apps to adhere to industry standards governing interconnection to 911 systems and use appropriate public-safety grade delivery networks and methods for message routing.¹⁷ A major concern espoused in the NASNA Request is a specific 911 App that promises to send the user's location information to the closest first responder.¹⁸ NASNA correctly concludes that this is a "huge problem" because the 911 App may route a call to the closest agency, yet that agency may not be the agency responsible for responding to that location.

¹⁷ NASNA Request p. 3.

¹⁸ NASNA Request p. 1.

This creates two issues: one operational and the other related to regulatory compliance. From an operational perspective, the 911 service provider has the ability to dynamically route calls based on its real-time understanding of trunk utilization and call load. This is further advanced with NG911 where dynamic policy routing rules may be utilized. The FCC has recognized that “NG911 networks are able to take advantage of the benefits of IP-based wireless and wireline networks to route calls faster and more efficiently.”¹⁹ Permitting a 911 App to override routing protocols contravenes the role of the 911 service provider, be it legacy or NG911, and creates significant risks to the public. The Commission should ensure that these routing protocols cannot be overridden or ignored by 911 Apps. Further, a 911 App “bypassing” the PSAP and directly notifying responders, potentially creates confusion for 911 dispatchers while decreasing situational awareness and effective response coordination that the PSAP specifically provides.

On the regulatory compliance side, selective routing is traditionally regulated at the state level. Many states require entities that provide selective routing service to be certificated. It may be beyond the FCC’s jurisdictional purview to regulate selective routing at the federal level, but this proceeding offers the Commission an opportunity to educate the 911 App industry about its regulatory compliance obligations under various state laws.

Delivery Methods. The FCC also should consider delivery methods in conjunction with the underlying technology used by the 911 App to deliver the emergency call or notification. Some 911 Apps may rely on VoIP technology. As the Commission has recognized, 911 calls that originate on a VoIP platform have different location accuracy requirements, and are handled

¹⁹ White Paper: A Next Generation 911 Cost Study: A Basis for Public Funding Essential to Bringing a Nationwide Next Generation 911 Network to America’s Communications Users and First Responders, Sept. 2011 at p. 2, available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-309744A1.pdf.

differently than emergency calls placed from a landline or wireless phone.²⁰ Adding another application over the top of an existing technology should provide the same level of accuracy (or better) as the existing technology.

In some cases, 911 Apps may have the technical capability to provide location updates, but the 911 system may not provide for the ability to update the user's location. Furthermore, in situations where location updates can be provided (*ex.* through the rebidding process), a PSAP's telecommunicator may not be aware of this capability as s/he is only accustomed to performing rebids on wireless calls. It also is possible that call handling equipment at some PSAPs will not be technologically capable of rebidding for a VoIP call placed via a 911 App on a wireless phone. While NG911 networks and call handling equipment will resolve these issues, 911 Apps are entering the market in a largely legacy 911 environment and, therefore, must align with these existing constraints. This is another nuance the Commission should consider as part of any subsequent 911 App-related proceeding.

As the Commission looks at these various issues, MCP recommends that it initiate a proceeding and that any proposed rules ensure all emergency calls and notifications placed via a 911 App are reliably and efficiently delivered to the appropriate PSAP and provide accurate information to the call taker.

B. The Commission Should Propose Rules that Require 911 Apps to Conduct Tests or File a Certification Prior to Making the 911 App Available to the Public

NASNA also asks the FCC to consider adopting testing or certification requirements for 911 Apps. Any such requirements would have to be closely tied to reliability and accuracy rules

²⁰ See, Consumer Guide: VoIP and 911 Service, available at <http://transition.fcc.gov/cgb/consumerfacts/voip911.pdf>.

proposed by the Commission. MCP supports the goal of holding 911 Apps to the same high standard of accuracy, security, and reliability as other systems that interconnect to 911. However, we do not express an opinion as to whether this is best accomplished through mandatory pre-market testing and reporting or if the Commission should require 911 App providers to periodically submit certifications confirming they comply with reliability, security, and accuracy rules.

As part of its 2013 Reliability Rules, the Commission requires all Covered 911 Service Providers²¹ to certify annually that they have conducted an audit of critical 911 circuits, ensured adequate backup power at all central offices, and implemented technology to diversely monitor their 911 network.²² MCP does not believe most 911 App providers would fall under the definition of a Covered 911 Service Provider because a key component of that definition is a direct contractual relationship with the PSAP. Most, if not all, 911 App providers would lack this relationship. However, 911 App providers should be treated as an originating service provider for the limited purpose of the 911 calls that originate through the 911 App. As such, 911 requests for assistance initiated through a 911 App should interconnect to the 911 system under the same regulations as other originating service providers.²³ The Commission should consider adopting a similar model for 911 Apps and, at a minimum, requiring all 911 App providers to periodically certify to the Commission that they are complying with any standards the FCC has adopted for 911 Apps.

²¹ 47 C.F.R. §12.4(a)(4).

²² 47 C.F.R. §12.4(c).

²³ *See, e.g.* 47 C.F.R. §§9.5 and 9.7 (prescribing the terms, access and level of 911 service Interconnected VoIP Providers must provide to customers).

MCP also urges the Commission to at least consider going one step further and requiring pre-market testing to ensure that all 911 Apps comply with industry standards²⁴ before those 911 Apps enter the marketplace and are used by consumers to place calls for help. The Commission recently completed another 911-related proceeding that requires some pre-market testing before a new technology has been introduced into the stream of commerce.²⁵ The Commission's wireless location accuracy rules require wireless providers to participate in an FCC-sanctioned test bed that ensures location technology is accurate prior to real-world operation.²⁶

Based on these recent experiences, the Commission understands the costs and benefits associated with requiring entities to submit ongoing certifications, participate in pre-market testing, and provide periodic progress reports to FCC staff. MCP urges the FCC to rely on its vast experience to determine what reliability, security, and accuracy standards it should adopt or amend that would govern 911 Apps. The FCC is in the best position to determine the best way to ensure 911 Apps comply with the Commission's standards to protect the 911 systems.

C. The Commission Should Carefully Consider Whether it has Statutory Authority to Propose, Implement, and Enforce Rules Related to Marketing of 911 Apps

The final category raised in the NASNA Request would require the Commission to consider rules that regulate the consumer marketing and educational information prepared by 911 App providers. As discussed above, MCP believes there is a key role for the FCC to regulate the information consumers receive about the service provided through 911 Apps. MCP urges the

²⁴ Existing industry standards the Commission should consider include the Alliance for Telecommunications Industry Solutions ("ATIS") and the National Emergency Number Association ("NENA").

²⁵ See, *In the Matter of Wireless E911 Location Accuracy Requirements*, Fourth Report and Order, FCC 15-9 (rel. Feb. 3, 2015).

²⁶ See, 47 C.F.R. §20.18(h)(3)(vi).

Commission to narrowly tailor its rules in this area to focus on the specific 911 service and not to impose general consumer marketing obligations on 911 App providers.

The FCC has authority to require 911 App providers to educate consumers about the service offered through the 911 App. The Commission has used this authority for other similar services in the past. For instance, the Commission currently requires Interconnected VoIP Providers to obtain customer location information and notify customers when 911 and E-911 service may and may not be available.²⁷

The Commission should narrowly tailor its proposed rules in this area to focus exclusively on the 911 service offered through 911 Apps. It may be beyond the FCC's purview to regulate marketing material distributed by 911 App providers. MCP does not want the FCC's rules that promote 911 App reliability to be undermined by the adoption of additional requirements that are beyond the scope of the FCC's authority.

²⁷ 47 C.F.R. §§9.5(d) and (e).

V. CONCLUSION

MCP applauds the Commission for addressing the NASNA Request by promptly issuing the Public Notice and soliciting industry input on whether the FCC should initiate a proceeding to address how 911 Apps interconnect with the 911 system. MCP encourages the Commission to initiate a proceeding and propose sensible regulations that would ensure 911 Apps offer enhanced, efficient, secure, and reliable access to the 911 network. The Commission should be careful not to stifle innovation in this nascent industry. MCP also urges the FCC to adopt narrow regulations that require 911 App providers to disclose accurate information about the services offered through the 911 App to consumers.

Respectfully submitted,

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